AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for hydrogenating nitrile functions ~~present~~ in organic compounds ~~over~~ in the presence of at least one heterogeneous catalyst, ~~wherein the hydrogenation is carried out~~ the process comprising hydrogenating the nitrile function of the organic compound in the presence of an ionic liquid, wherein ~~and the anion of~~ the ionic liquid ~~is~~ comprises an anion selected from the group consisting of halides F^-, Cl^-, Br^-, I^-, acetate CH_3COO^-, trifluoroacetate CF_3COO^-, triflate $CF_3SO_3^-$, sulfate SO_4^{2-}, hydrogensulfate HSO_4^-, methylsulfate $CH_3OSO_3^-$, ethylsulfate $C_2H_5OSO_3^-$, sulfite SO_3^{2-}, hydrogensulfite HSO_3^-, chloroaluminates $AlCl_4^-$, $Al_2Cl_7^-$, $Al_3Cl_{10}^-$, tetrabromoaluminate $AlBr_4^-$, nitrite NO_2^-, nitrate NO_3^-, dichlorocuprate $CuCl_2^-$, phosphates, phosphate PO_4^{3-}, hydrogenphosphate HPO_4^{2-}, dihydrogenphosphate $H_2PO_4^-$, carbonate CO_3^{2-}, hydrogencarbonate HCO_3^-, sulfonate $-SO_3^-$, tosylate p-$CH_3C_6H_4SO_3^-$ and bis(trifluoromethylsulfonyl)imide $(CF_3SO_2)_2N^-$, and the ionic liquid contains phosphonium ions, or ~~and/or~~ at least one five- or six-membered heterocycle which contains at least one phosphorus or nitrogen atom and, ~~if appropriate~~ optionally, a sulfur atom, ~~and/or~~ an oxygen atom or both oxygen and sulfur atoms, or both the phosphomium atoms and the at least one heterocycle.

2. (Currently amended) A process according to claim 1, wherein ~~a nonpolar ionic liquid is used in the case of a~~ the heterogeneous catalyst ~~having~~ comprises a polar surface and the ionic liquid is a nonpolar ionic liquid ~~a polar ionic liquid is used in the case of a heterogeneous catalyst having a nonpolar surface and/or ionic liquid and catalyst are chosen so that starting material or product reside in a different phase and/or irreversible occupation of the catalyst is prevented by the ionic liquid.~~

3. (Currently amended) A process according to claim 1 ~~or 2~~, wherein the ionic liquid has a melting point below 200°C.

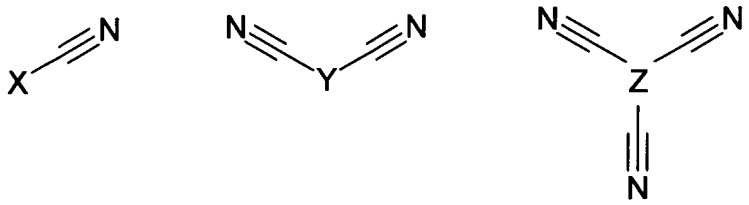
4. (Currently amended) A process according to ~~any of claims 1 to 3 carried out~~ claim 1, wherein the process is conducted in the absence of ammonia.

5. (Currently amended) A process according to ~~any of claims 1 to 4, wherein, in the case of a suspension process, the~~ claim 1, wherein the heterogenous catalyst ~~and/or~~ or the ionic liquid are recirculated separately or together ~~to~~ in the process ~~or, in the case of a fixed-bed process, the ionic liquid is recirculated to the process~~ if the process is a suspension process.

6. (Currently amended) A process according to ~~any of claims 1 to 5~~ claim 1, wherein ~~a~~ the heterogeneous catalyst ~~based on~~ comprises one or more metals selected from the group consisting of nickel, cobalt, copper, iron, ruthenium, rhodium, iridium, palladium ~~and/or~~ and platinum ~~is used, if appropriate as a skeletal catalyst~~.

7. (Currently amended) A process according to ~~any of claims 1 to 6~~ claim 1, wherein the hydrogenation is carried out at a temperature of from 20 to 250°C and/or a pressure of from 1 to 300 bar.

8. (Currently amended) A process according to ~~any of claims 1 to 7~~ claim 1, wherein the nitriles to be hydrogenated have at least one of the following structural units:



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where X in the structural units is a linear, branched or cyclic group selected from the group consisting of alkyl, cycloalkyl, alkenyl, alkynyl, aryl, hydroxyalkyl, alkoxyalkyl, aminoalkyl and C_{1-4}-aryl and y and z are selected from the group consisting of alkyl, cycloalkyl, alkenyl, alkinyl, aryl, alkoxyalkyl and aminoalkyl.

9. (Original) The use of ionic liquids in hydrogenations of nitrile functions present in organic compounds over at least one heterogeneous catalyst, wherein the anions of the ionic liquid are selected from the group consisting of halides F^-, Cl^-, Br^-, I^-, acetate CH_3COO^-,

trifluoroacetate CF_3COO^-, triflate $CF_3SO_3^-$, sulfate SO_4^{2-}, hydrogensulfate HSO_4^-, methylsulfate $CH_3OSO_3^-$, ethylsulfate $C_2H_5OSO_3^-$, sulfite SO_3^{2-}, hydrogensulfite HSO_3^-, chloroaluminates $AlCl_4^-$, $Al_2Cl_7^-$, $Al_3Cl_{10}^-$, tetrabromoaluminate $AlBr_4^-$, nitrite NO_2^-, nitrate NO_3^-, dichlorocuprate $CuCl_2^-$, phosphates, phosphate PO_4^{3-}, hydrogenphosphate HPO_4^{2-}, dihydrogenphosphate $H_2PO_4^-$, carbonate CO_3^{2-}, hydrogencarbonate HCO_3^-, sulfonate $-SO_3^-$, tosylate $p\text{-}CH_3C_6H_4SO_3^-$ and bis(trifluoromethylsulfonyl)imide $(CF_3SO_2)_2N^-$ and the ionic liquid contains phosphonium ions and/or at least one five- or six-membered heterocycle which contains at least one phosphorus or nitrogen atom and, if appropriate, a sulfur and/or oxygen atom.

10. (New) A process according to claim 1, wherein the heterogeneous catalyst comprises a nonpolar surface, and the ionic liquid is a polar ionic liquid.

11. (New) A process according to claim 1, wherein the organic compound and the resulting hydrogenated product reside in a different phase or irreversible occupation of the catalyst is prevented by the ionic liquid.

12. (New) A process according to claim 1, wherein the heterogeneous catalyst is provided in a fixed bed and the ionic liquid is recirculated in the process.

13. (New) A process according to claim 2, wherein the ionic liquid has a melting point below 200°C.

14. (New) A process according to claim 10, wherein the ionic liquid has a melting point below 200°C.

15. (New) A process according to claim 11, wherein the ionic liquid has a melting point below 200°C.

REMARKS